

Remarks

Claims 1 to 35 are pending.

Objections to the Claims

Claims 7, 15, 23, and 30 were objected to as being dependent upon a rejected base claim, but would be allowable if re-written in independent form including all of the limitations of the base claim and any intervening claims.

103 Rejections

Claims 1-6, 8-14, 16-22, 24-29, and 31-35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Pocius et al. (U.S. Patent No. 4,521,490 in view of Handbook (The Handbook of Epoxy Resins)). The Patent Office submits in part that: Regarding claims 1, 3, 4, and 34, Pocius et al. disclose an article comprising a substrate, and an adhesive comprising the reaction product of epoxy resin, curative, and an epoxy reactive thioether-containing compound, adhesively bonded to a substrate (col. 5, line 25 to col.6, line 66); that Pocius et al. do not specifically disclose a substrate comprising silicon, noble metal, plastics, polyamide, or combinations thereof; the Handbook of Epoxy Resins discloses epoxidized thiols added to epoxy resins as a flexibilizer for an epoxy composition applicable to specifically gold, silver, glass, and general rubber and plastic substrates. The Patent Office concluded that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied the composition of Pocius et al. to a wide variety of surfaces, such as those described in The Handbook of Epoxy Resins. The Patent Office rejected claims 5, 6, 8-14, 16-22, 24-29, 31-33, and 35 over the same references above using similar reasoning.

Applicants respectfully traverse the above rejection because the Patent Office has failed to make a *prima facie* case of obviousness since even if the above references were combinable as suggested, the combined teaching of the references do not teach or suggest the invention as claimed.

Applicants respectfully disagree with the Patent Office that Pocius et al. disclose an epoxy-reactive thioether-containing compound. Columns 5 and 6 of Pocius et al. describe a curable adhesive comprising (1) a curable composition containing (a) a curable epoxide group-containing compound (Z) and (b) colloiddally dispersed elastomeric particles that are insoluble in the epoxide group-containing compound and (2) a curing agent comprising one or more

poly(oxyhydrocarbolene)diamines. The colloiddally dispersed elastomer comprises (i) elastomeric polymer and a stabilizer (ii) wherein the stabilizer has the formula PQ, wherein P is a functional group covalently attached to Q or a polymeric segment. A PQ stabilizer may be a thiol (column 10, lines 11-16). Pocius et al. do not mention thioether groups nor mentions compounds containing thioether groups.

Handbook also does not disclose thioether-containing compounds as claimed and described by Applicants. Handbook discloses an epoxidized thiol wherein the group linking the epoxide groups has the formula: $-\text{CH}-\text{CH}_2-\text{S}-\text{R}-\text{S}-\text{CH}_2-$ (page 16-3). On page 16-30, U.S. Patent No. 2,653,141 is referenced as the source for the formula in Handbook. At column 1, line 70 to column 2, line 2, the '141 reference describes R as the radical $-(\text{CH}_2\text{H}_4\text{OCH}_2\text{OC}_2\text{H}_4\text{SS})_n\text{C}_2\text{H}_4\text{OCH}_2\text{OC}_2\text{H}_4-$ wherein n is 0 or an integer of from 1-50 which would result in a di-epoxide having either a formal $(-\text{OCH}_2\text{O}-)$ linkage or both a polysulfide linkage and a formal linkage. This is not Applicants' invention since Applicants distinguish such compounds (page 2, line 20).

Thus, even assuming the references cited by the Patent Office are combinable, the combination as suggested does not result in Applicants' claimed invention.

For at least this reason, the Patent Office has failed to provide a *prima facie* case of obviousness.

In view of the above, it is submitted that the application is in condition for allowance. Reconsideration of the application is requested.

Respectfully submitted,

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Date

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